



Emergency Services Training

“Aircraft Survival Kit Program”



Gwinnett County Composite Squadron GA-112

Acknowledgement

A special thanks is extended to the California Wing for the creation of many items in the following format, and for the items that make up the following survival kit

Program Purpose

- The purpose of this program is to standardize the survival kit used in the Gwinnett aircraft.
- Standardization of survival kit contents insures all required survival items are available
- Minimizes duplication of heavy or expensive items by CAP members, and allows for routine inspection and replacement of expired items
- Replacement costs is minimizes while insuring life-limited components are replaced on schedule

Standardizing

- By standardizing;
 - Aircrews can rely on certain items being present
 - Drinking water and first aid will be available for everyone on the aircraft
 - Minimizes the weight and size of the survival equipment

Two Types of Kits are Recommended

● Aircraft Kit

- This kit shall always remain in the aircraft
- It's weight should be kept to a minimum of 18.0 lbs
- It should be secure, yet accessible
- It should always be sealed
- Bi-annual inventories is necessary

● Personal Kit

- This Kit should be viewed as an insurance policy in the event the aircraft's survival kit is destroyed
- It's weight should be approved by the pilot
- It should not interfere with your duties
- It's contents are only an abbreviation of the larger aircraft kit

The background is a solid dark blue. It is decorated with several thin, light blue lines that intersect at various angles, creating a dynamic, abstract pattern. The lines vary in length and orientation, some running diagonally across the frame.

The Aircraft Kit

Categories of the Aircraft Survival the Kit

- The aircraft survival equipment should fall into four general categories;
 - Signaling
 - Shelter
 - Water/food
 - First Aid

Recommended Survival Kit

- The following survival kit will weight approximately 18 lbs, and should be less than 3 cubic feet in size.
- Initial acquisition cost is approximately \$350.00.
- Recurring costs depends on those items needing replacement prior to the next inspection period, but costs will vary from approximately \$4.00 (water only) to \$100 (replacing all life-limited items including pyrotechnics).
- The pyrotechnics are the most expensive components to replace, but have a 42 month life limit from the date of manufacture.

Inspections

- The kit should be fully inspected bi-annually
- To insure familiarization, this inspection should be performed in the presence of all participating aircrew members.
- All life-limited components that expire prior to the next annual inspection should be replaced with a fresh item.
- Note: the inspection intervals are very conservative, and items are fully expected to be functional past the inspection date. They should still be replaced on time, the expired items can be used for training purposes.



***The following kit provides items in all
four of these areas.***

The Case

- The case should provide storage and be in the form of a small soft backpack. The case should be a bright color – red or orange, and clearly marked as aircraft survival equipment.
- It should be signed and sealed by the responsible person in charge of the kit
- It's location in the aircraft should be secure, yet provide fast and easy retrieval by the Scanner

Luggage Tag & Seal

- Luggage tag, laminated: Identifies the case and the aircraft it's assigned to. Has space for recording the weight of the case (for weight and balance purposes) and inspection due date.
- The seal should be identified as such, dated, signed by the responsible person in charge of the kit, and be securely attached so its removal will be obvious on the preflight inspection.

Aircraft Survival Kit - N

Next Inspection Due Date:

Weight (lbs):

Signature:



Note! Breaking this seal will
require a complete and formal
inventory of this Kit

SURVIVAL KIT

FOR EMERGENCY USE ONLY

DO NOT UNSEAL or OPEN

Note! Breaking this seal will require a complete and formal inventory of this Kit

Inventory List

- The inventory list should be placed inside, and attached to the outside of the survival kit

	Item	Quantity	Expiration Date
1	Case	1 ea	
2	*Water, .5 liter bottles	8 ea	
3	Cup, Canteen	1 ea	
4	Stove, Canteen Cup	1 ea	
5	Fuel, Trioxane	3 pkg (2 boxes)	
6	*Food Bar, Datrex, 3600 K cal	1 ea	
7	Space Rescue Blanket	4 ea	
8	Space Rescue Sleeping Bag	4 ea	
9	Parachute Cord, 550#, 50'	2 ea	
10	Knife or multitool	1 ea	
11	Knife, Large	1 ea	
12	Matches, strike anywhere - Propane Lighter - Case	1 pkg 2ea	
13	Candle, long burning	2 ea	
14	*Aerial Flares	3/pkg 2	
15	*Smoke flares	3/pkg 2	
16	See-Rescue Panel	1 ea	
17	Flashlight, waterproof AA size, spare bulb	1 ea	
18	Lithium batteries AA Energizer 2-pack	2 ea	
19	Trash bag	4 ea	
20	Plastic bag, ziplock, qt size	4 ea	
21	Plastic bag, ziplock, pt size	4 ea	
22	Packing list, laminated	1 ea	
23	Luggage tag with weight, cube, inspection date	1 ea	
24	Notebook, waterproof	1 ea	
25	Pencil, wood, with eraser	1 ea	
26	Survival manual, AFP 64-5 (waterproof)	1 ea	
27	Signal mirror, on lanyard, with whistle	1 ea	
28	*First aid kit (in ziplock bag) containing:	1 ea	
28a	Band-Aids	12 ea	
28b	28b Gauze pad 4x4	2/pkg 8 pkg	
28c	*Iodine solution 15cc btl	1 ea	
28d	Triangular bandage	2 ea	
28e	Tape, waterproof or athletic	1" roll	
28f	Dressing, field individual	4 ea	
28g	*Tablets, water purification iodine base 1	1 btl	
28h	*Analgesic, non-prescription	12 /pkg	

* Expires, requires inspection and replacement

Water

- Four liters of water, provided in 8 separate .5 liter water bottles
- The purpose of 8 separate containers is to provide protection in the case of a failure of a single container, and also allows easy sharing
- The water is commercially available at any market, and should be replaced, and inspected regularly to insure the bottles haven't leaked. Keep the containers right side up, to minimize the threat of leakage.

Drinking Cup & Stove

- Cup, canteen. A standard military canteen cup allows survivors to heat water, drink, get water from streams, etc. 1 ea.
- Stove, canteen cup. With the canteen cup, the stove allows use of either fuel tablets or small twigs to heat water. The canteen cup stove is very lightweight, and fits over the bottom of the stove for storage. 1 ea.

Fuel

- Fuel, trioxane. Military fuel tablets provide heat for water (1 tablet will boil a canteen cup of water in a couple of minutes), and also acts as a fire starter for local wood fires. 3 boxes

Food

- Food bar, Datrex 3600 Kcal. A compressed high-carbohydrate, low thirst-provoking food product with long-term shelf stable packaging. Has expiration date on package. 2 packages

Blankets & Sleeping Bags

- Space Rescue Blankets. Aluminized Mylar blankets, can be used as shelter and for warmth. 4 ea
- Space rescue sleeping bags. Similar to the blankets, these are formed into a sleeping bag configuration and can be used for sleeping bags or rain shelter. 4 ea

Parachute Cords

- Parachute cord, 100' (can be two 50' lengths). For general tying, lashing or use as a tourniquet to stop bleeding

Knife, Two Types

- **Small Knife / Multitool:** A general purpose combination pocket knife and a leatherman, or similar multitool, for cutting and tool use. Make certain it's sharp, and if not rust-resistant use a long-duration protective like LPS1 or LPS2. A standard pocket knife or a multi-tool can be used. 1 ea.
- **Large Knife:** This knife should be attached to the outside of the Survival Case for quick retrieval. It should be strong enough and designed to break, cut, or saw through the aircraft fuselage, seatbelts, or plexiglas in the event you become trapped inside the aircraft. It can also be used to dig and cut vegetation.

Matches, Lighter & Case

- Matches, strike anywhere. Strike-anywhere (non-safety) wooden kitchen matches, in waterproof case. Windproof (lifeboat) matches can also be used. Fill the container up, alternating the heads up and down to get the maximum number in the case. Should be inspected and possibly replaced yearly.
- Lighter: Simple over the counter propane lighters is recommended, 1 ea.
- Both matches and lighter will serve as a backup to each other.
- Match case, waterproof. A brightly colored case for matches is less likely to get lost than a green military type.

Candles

- Candle, long burning – provides heat and light at night. 2 ea.

Aerial & Smoke Flares

- Aerial flares – 2 packages of “pocket rocket” red aerial flares.
- Smoke flares – 1 package of 3 smoke generating flares.
- Expiration dates on their packages

See-Rescue Panel

- See-Rescue Panel. A relatively new device, it's a long plastic banner with stiffeners to keep spread out and floating. These devices are replacing dye markers in military survival kits since they don't dissipate, and are also effective on land. Like the space blankets, they should be left in their case until needed – it's very hard to roll them back up again. 1 ea.

Flashlight & Batteries

- Flashlight, waterproof. A small (AA cell) waterproof flashlight, with spare bulb. While every crew member should have a flashlight, this provides a backup.
- Batteries (for the flashlight). A 4-pack of AA lithium batteries provides two complete sets of batteries for the flashlight. Lithium batteries have a much longer shelf life, and much better cold weather performance than alkaline batteries.

Plastic Bags

- Trash bags – large, leaf sized plastic bags, for shelter. 4 ea
- Plastic bags, ziplock, sandwich (pint) size. For water storage or other use. 4 ea
- Plastic bags, ziplock, quart size. For water storage or other uses. 4 ea

Note Keeping

- Notebook, waterproof. A small, waterproof paper booklet for recording notes, etc.
- Pencil, wood. For recording in the notebook.

Survival Manual

- Survival Manual. The waterproof version of the Air Force survival manual (Air Force Pamphlet 64-5, dated 1990 or later) is an excellent, general purpose survival manual in a small package.
- Note! Copies of this Survival Manuals should be distributed to all aircrew members for familiarization.

Signaling

- Signal mirror and whistle, on lanyard. After a working ELT, a signal mirror is the most valuable daytime signaling aid there is, and a whistle travels better than shouting.
- The lanyard keeps from losing them.

First Aid Kit

- First Aid Kit. The first aid kit should be designed to deal with emergency, life threatening injuries, mainly stopping bleeding.
- Splint materials can be locally fabricated using many of the components of the survival kit, aircraft parts and local vegetation.

Sources of Survival Kit Contents

- Recreational Equipment Inc – <http://www.reigear.com> A
- Brigade Quartermasters – <http://www.actiongear.com>. West Marine – <http://www.westmarine.com>, 1-800-BOATING (1-800-262-8464) A general
- Best Buy – <http://www.bestbuy.com>
- Battery replacements for military strobe lights, uses lithium photo type 123 batteries.
<http://www.pacificsites.com/~brooke/5BA.shtml>



The Personal Kit

Purpose of the Personal Kit

- Egressing a burning or damaged aircraft leaves very little time to secure the survival kit.
- This is why some aircrew members decide on a redundancy kit
- It should be small and light weight and accessible
- It should not get in the way of normal mission duties, or egress of the aircraft
- Its entry into the aircraft should be approved by the pilot before flight

Cases for Personal Survival Kits

- Two types of cases should be considered
 - Survival Vest
 - Waist Pouch

Survival Vest / Waist Pouches

- Survival vests are available in many configurations. Many are adaptations of fishing or photographer's vests and some pilots use these style vests in lieu of the real thing. Some work better than others. A military vest, constructed with Nomex, is probably one of the best choices.
- Waist pouches are also popular and are more comfortable than the vest however, they are not designed, nor configured to provide immediate access to items needed in the event an emergency egress of the aircraft

Categories of the Personal Survival the Kit

- The personal survival equipment should fall into four general categories;
 - Escape
 - First Aid
 - Communications
 - Water/food

Design of the Personal Survival Kit

- The design of the personal survival kit should include items to:
 - Insure a quick egress from the aircraft
 - Provide minor first aid
 - Communicate to other locations
 - Include basic items to maintain good health
 - Partially offset the loss of the aircrafts survival kit

Suggestions on Contents for a Personal Survival Kit

- **Small Knife / Multitool:** A general purpose combination pocket knife and a leatherman, or similar multitool, for cutting and tool use. Make certain it's sharp, and if not rust-resistant use a long-duration protective like LPS1 or LPS2. A standard pocket knife or a multi-tool can be used. 1 ea.
- **Large Knife:** This knife should be attached to the outside of the Survival Case for quick retrieval. It should be strong enough and designed to break, cut, or saw through the aircraft fuselage, seatbelts, or plexiglas in the event you become trapped inside the aircraft. It can also be used to dig and cut vegetation.

Suggestions on Contents for a Personal Survival Kit, Cont

- Small Travel First Aid Kit
- Evacuation Tool / Knife
- Communication Devices
 - Radio / Cell Phone
 - Signal Mirror
 - Strobe Light
- Matches / Propane Lighter / Striker
- Parachute cord, 25 ft'

Suggestions on Contents for a Personal Survival Kit, Cont

- Nutrition
 - Health Bars
 - Water Canteen



Discussion